Space Weather Forecast

Issued on Thursday, 06 April 2023 at 00:30 Local

This forecast provides a four day assessment of space weather events. The probabilities stated below are for reaching or exceeding the given levels. For more information about space weather impacts please see the Met Office Space Weather Scales https://www.metoffice.gov.uk/weather/learn-about/space-weather/uk-scales

---

Space Weather Forecast Headline: Slight chance of Moderate flares (R1-R2; Minor-Moderate radio blackouts) throughout.

Analysis of Space Weather Activity over past 24 hours

Solar Activity: Solar activity has been Low through the last 24 hours, with no significant flare activity. There are two sunspot regions on the visible disc The largest region is large and moderately complex in the southwest quadrant.

Solar Wind / Geomagnetic Activity: The solar wind is now at slightly elevated levels, due to the influence of two fast solar wind sources having declined from 520 km/s to 420 km/s. Total magnetic field strength has been weak, with the north -south component also varying weakly. Geomagnetic activity has been Quiet to Unsettled, with one Active interval observed.

Energetic Particles / Solar Radiation: High energy protons have been at background levels, with no solar radiation storms observed.

Four-Day Space Weather Forecast Summary

Solar Activity: Solar activity is forecast to be mainly Low, with a slight chance of Moderate activity.

Solar Wind / Geomagnetic Activity: No CMEs are forecast to affect the Earth through the next four days. Solar winds at slightly elevated levels are forecast to decline a little further over the next 24 hours with little change likely for the remainder of the period. Geomagnetic activity is forecast to be Quiet to Unsettled, with a chance of Active intervals, especially on Day 1 (6 Apr).

Energetic Particles / Solar Radiation: Solar radiation storms are unlikely through this period, although there is a slight chance of reaching the Minor Storm level should a more significant flare occur.

Issued by Met Office Space Weather Advisor, Tel: +44 (0) 330 135 4254 Email: moswoc@metoffice.gov.uk

© Crown Copyright 2023. All Rights Reserved.

Met Office

Space Weather Forecast

Geomagnetic Storms:

Geo-Magnetic Storm Probability (Exceedance)	Level	Past 24 Hours (Yes/No)	Day 1 (00-24 UTC) (%)	Day 2 (00-24 UTC) (%)	Day 3 (00-24 UTC) (%)	Day 4 (00-24 UTC) (%)
Minor or Moderate	G1 to G2	No	3	1	1	1
Strong	G3	No	1	1	1	1
Severe	G4	No	1	1	1	1
Extreme	G5	No	1	1	1	1

Radio Blackouts - X Ray Flares:

X Ray Flares Probability	Level	Past 24 Hours (Yes/No)	Day 1 (00-24 UTC) (%)	Day 2 (00-24 UTC) (%)	Day 3 (00-24 UTC) (%)	Day 4 (00-24 UTC) (%)
Active	R1-R2 M Class	No	10	10	10	5
Very Active	R3 to R5 X	No	1	1	1	1

Solar Radiation Storms - (High Energy Protons):

Radiation Storms Probability (Exceedance)	Level (cm^{-2} sr^{-1} s^{-1})	Past 24 Hours (Yes/No)	Day 1 (00-24 UTC) (%)	Day 2 (00-24 UTC) (%)	Day 3 (00-24 UTC) (%)	Day 4 (00-24 UTC) (%)
Active	≥ S1	No	3	3	3	3
Very Active	≥ S3 *	No	1	1	1	1

* S3 ≥ 10 MeV ≥ 1000 pfu and / or ≥ 50 MeV ≥ 10 pfu. (pfu = $cm^{-2}sr^{-1}s^{-1}$)

Issued by Met Office Space Weather Advisor, Tel: +44 (0) 330 135 4254 Email: moswoc@metoffice.gov.uk

© Crown Copyright 2023. All Rights Reserved.